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ABSTRACT

The present form of vocational education in the Federal Republic of Germany with its origins in trades and crafts of the Middle Ages has existed since the 1920s. Only in 1969, however, did comprehensive legislation declare company vocational training within the sphere of state responsibility, give unions participation rights in determining training content, and create a Federal Institute for Vocational Education Research. Improved quality of training but fewer training places led to the Act on the Promotion of Training Places (1976), which provided certain prerequisites for the future of vocational education: it became a political subject and "demand for training" is now measured by the number of school leavers, not by industry's needs. The future development of vocational education will be determined by (1) society's image of a working person, (2) cooperation between employers and unions, (3) well-trained vocational school teachers and training personnel, and (4) individual benefit given to handicapped, foreign children, and females. Despite different education systems in the Federal Republic and the United States, work of vocational educators and youth problems are similar. Views should be exchanged regarding school to work transition, greater adjustment between the education and employment systems, learning on the job, and financing vocational education. (YLB)

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Occasional Paper No. 54

CURRENT PROBLEMS OF VOCATIONAL EDUCATION IN THE FEDERAL REPUBLIC OF GERMANY

by

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EDUCATION

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PREFACE

We are indebted to Dr. Hermann Schmidt, president of the Federal Institute of Vocational Training in the Federal Republic of Germany, for sharing with us his insights on vocational education in Germany.

Dr. Schmidt's seminar, entitled "Current Problems of Vocational Education in the Federal Republic of Germany," proved timely and insightful. In his lecture, Dr. Schmidt outlined the history of vocational education in the Federal Republic and explained the measures the German government has taken to insure adequate vocational training for German youth. He also emphasized the fact that our two countries have much in common and much to share in the area of vocational training.

Dr. Schmidt brings to his present position a wide and varied background of experience and expertise in the areas of banking, business management, teaching, and government service. He holds both a master's degree and a doctorate from the University of Cologne. For six years he served as a teacher in a commercial school, and for another six years he was a vocational school principal. His experience in German government includes six years with the Ministry of Education. He has held his present post as president of the Federal Institute of Vocational Training since 1977.

The National Center for Research in Vocational Education and The Ohio State University are pleased to share with you Dr. Schmidt's presentation, "Current Problems of Vocational Education in the Federal Republic of Germany."

Robert E. Taylor, Executive Director
The National Center for Research
in Vocational Education

CURRENT PROBLEMS OF VOCATIONAL EDUCATION IN THE FEDERAL REPUBLIC OF GERMANY

The Historical Development of the German Vocational Education System

Vocational education in the Federal Republic has its origin in the trades and crafts of the Middle Ages. The vocational and status organizations of the time, the corporations, guilds, and companies regulated and supervised training up to the master's qualification. Although apprentices were taken into the master's family during their training, this was not a private matter for those concerned; it was very carefully controlled by the organs of the guild concerned.

The medieval guild structure was replaced by the industrialization of the nineteenth century. With the widespread use of child labor, that in some cases was ruthless exploitation with little education or training about it, there were repeated calls for vocational education to become part of the responsibility of the state.

Even in the nineteenth century, schools were set up as further education centers which were attended (largely on Sunday) by young people undergoing vocational training. After the First World War, attendance at vocational school was made obligatory in the Weimar Republic. So the present form of vocational education in Germany, which is known as the "dual system," has existed since the 1920s.

After the nine or ten years of obligatory schooling (this varies in the different Federal Länder) about half the pupils in any one year conclude a two to three year training contract with a company and spend one to two days a week at a state vocational school. Vocational training is given for 450 different qualified occupations.

The Development of the Education and Training System in the Federal Republic in the 60s and 70s

The Adenauer era came to an end in the Federal Republic at the beginning of the 1960s. It had been the phase of reconstruction after the war when, with the help of U.S. capital and a core of highly skilled workers, what was later rather euphemistically called "the German economic miracle" was accomplished.

The "hostile attitude" to planning which prevailed prior to the mid-1960s was largely due to the great success of the market economy. But in comparison with other industrial states with which the Federal Republic was increasingly competing on world markets, it became apparent that there was a growing technological gap, especially in comparison with the U.S. This was seen as partly due to the fact that better conditions for scientific work in the U.S. were drawing German scientists away from the country. Germany was beginning to experience a serious brain drain. But the German education system, as it was then, was not able to begin to close the gap.

In 1960, only about 6 percent of pupils in any one year entered the universities, while in other industrialized countries the figure was at least twice as high, and in some cases it was three to four times higher. A prominent German education policy expert forecast an "educational catastrophe" and painted an extremely dark picture of the technical, economic, and cultural development of the Federal Republic. Only a complete change in the attitude concerning education on the part of the Germans could bring about any improvement. Parents were called upon to "send their children for a longer period to better schools." They did in fact respond, and other factors helped the change: the rise in general prosperity, the growth in urbanization as agriculture declined and people left the rural areas, and the expansion of the education system in the country. The development has been astonishing: the number of young people with university entrance qualifications has quadrupled in the last twenty years, and the percentage of young people entering the universities has risen from 6 percent to 18 percent in any given year and is still rising. Planners envisage a rise of up to 22 percent by the mid-1980s.

This "education wave" set in motion at the beginning of the '60s was, however, limited to general education. It was initiated by the educated middle class, who were entirely in the humanist tradition of the Humboldt ideals of the nineteenth century. The training of skilled workers, which has traditionally been outside the general education system in Germany, played no part in it. Nevertheless, the wave did have an impact on vocational education, and it stimulated the discussion which the unions have repeatedly revived since 1919 on reforms in company training.

This culminated in 1969 in comprehensive legislation on company vocational training by the Federal Parliament, the "Vocational Training Act." The Act declared company training to be within the sphere of state responsibility, gave the state powers of regulation, confirmed the companies as responsible for implementing vocational training, and gave the unions decisive participation rights in determining the content of vocational training in companies. The Act also created a Federal Institute for Vocational Education Research designed to stimulate vocational education through research.

The Act for the first time introduced qualitative norms for company training which ranged from statutory training regulations through the qualification of training personnel to the final examinations and the regulation of further training and re-training. Supervision of companies in the planning and implementation of training and the administration of the final examinations was entrusted to the Chambers, which are bodies incorporated under public law insofar as they take on public tasks and responsibilities.

The Act brought about a considerable improvement in the quality of company training; but as a result, the number of training places, which had been about 700,000 in 1970, dropped considerably in the following years. At the same time, alternatives to company training in schools were discussed causing concern among companies that they would eventually be left out of planning for future vocational training.

While the decline in the number of training places was negligible at the beginning of the 1970s (during the boom), the continued decline became a real political problem when the economic crisis set in after the oil shock in 1973. By then the children from the years with a high birth rate were reaching school-leaving age. The number of school-leavers was rising dramatically:

Numbers Leaving Secondary Stage 1 (15-16 year-olds)

1976	684,000
1977	773,000
1978	829,000
1979	851,000

The situation was made worse by the fact that the economic crisis which had affected all the industrial countries caused a strong rise in unemployment in Germany as well, particularly among young people. The Federal Republic, which had hardly known unemployment for more than fifteen years, found itself with over a million unemployed, every tenth person of whom was under twenty.

Measures Adopted by the State and Private Industry to Improve the Situation in Vocational Education

In 1976 the Federal Parliament passed the Act on the Promotion of Training Places. The Act was extremely controversial and met with bitter resistance from the parliamentary opposition and the employers' associations. The employers actually made an offer to the Chancellor to increase the number of training places available by 40,000 for the year 1976 if he would withdraw the legislation. The main reason for the heated opposition was a financing regulation which had appeared in federal legislation for the first time: The Act provided for the redistribution of the costs of company training to all companies through a central fund.

A commission appointed by the Federal Parliament in 1970 had, after four years' work, established that

- only a minority of companies would provide training (about 20 percent to 30 percent), and these were spread very unevenly in the various industries;
- the costs to companies of vocational training varied considerably, ranging from high flat fees (up to DM 50,000 for three years' training) to earnings on training (up to DM 15,000 on three years' training).

The high costs had the effect of making training dependent on cyclical fluctuations, especially in certain industries (construction, mechanical engineering, etc). The commission estimated the total amount spent on initial training in companies in 1973 at DM 5 billion.

While the unions responded by demanding comprehensive financing of vocational education with the establishment of minimum qualitative regulations, the employers rejected the idea of a central fund as an unacceptable intervention in their sphere of decision-making. Opinions were also divided over the fund in the Socialist-Liberal Coalition, which had formed the government since 1969. Finally the government decided on a compromise, which was described as an "incentive" and as a "fleet in being":

1. The federal government would establish each year the supply of and demand for training places;
2. If supply did not exceed demand by at least 12.5 percent, the federal government would have authority to impose a levy of 0.25 percent of the total wage bill on all companies with more than twenty employees;
3. The fund gathered from the above levy could be used to pay a premium of between DM 3,000 and DM 5,000 for each additional training place created, according to the costs involved.

This arrangement did not introduce comprehensive central financing (which the unions wanted) but it established a legislative base for a central fund (which the employers had opposed). In fact

the Act worked to coerce companies into providing enough training places by forcing penalties on those who didn't.

The Act to Promote the Number of Training Places created institutional and instrumental bases not only for financing but for a large number of other tasks in vocational education as well. The new organ was the Federal Institute for Vocational Education which had its seat in Berlin and Bonn.

In this institute the legislature created what the Federal Minister of Education at that time called "a common address for vocational education in the Federal Republic." The institute was given its own decision-making organ, a kind of parliament, composed of the representatives of the competent state institutions and social groups.

The main committee of the institute is comprised of eleven representatives of the unions, eleven representatives of the employers, one representative of each of the eleven federal Länder, and five representatives of the federal government (the Ministries of Education, Economics, Home Affairs, and Labor) who have eleven votes. The primary function of the main committee in education policy is to act as a consultative body for the federal government. In December and January every year since its inception it has discussed the supply of training places which may be expected for the coming year and then made a recommendation to the federal government on whether to bring the financing regulation into force or not. For this purpose the Federal Institute has built up statistics on vocational training which are supplemented every year by surveys of a large number of companies concerning their attitudes towards training. There is also the information supplied by the Chambers on the number of training contracts concluded during the preceding year. This material forms the basis for the discussion on the prognosis for the coming year. In 1977, 1978, and 1979 the main committee of the Federal Institute recommended that the federal government not bring the levy into force since it felt the supply of training places would be adequate. The employers and a majority of the Länder had voted against using the levy, while the unions and a minority of the Länder had voted for it.

The Act on the Promotion of Training Places has been in force for three years now and we can say that

1. the incentive effect of the legislation has probably been greater than the effect that could have been achieved by activating the levy and distributing the sum of DM 900 million which the levy would have brought. The very intense public discussion on the lack of training places had an impact on all concerned but especially on the employers, and the number of training places offered rose beyond all expectations. From 1976 to 1978 the supply rose by about 150,000 – from 480,000 to 630,000. This was at a time when the number of unemployed in the Federal Republic was well above one million.

2. the statistics compiled by the Federal Institute have provided useful information on the regional distribution of training places. The shortage of supply in structurally weak areas has become clear to politicians, and there has been a range of activities in the Länder as a result. All of the Länder have produced development programs which have provided premiums for company training places and which led to an enormous increase in full-time capacity at vocational schools. The amount now provided by the Länder in support of company training places exceeds the sum of DM 1 billion a year and hence the amount which could be raised by the levy provided for in the Act. The difference, of course, is that the Länder programs are financed entirely out of public funds.

The 1976 Act on the Promotion of Training Places created important prerequisites for the future of vocational education in the Federal Republic:

1. Vocational education has become a political subject. From 1960 to 1975 the education debate concentrated mainly on the expansion of the general school system and the universities. Since 1975 vocational education has been the focus of discussion. There is now general awareness of the importance of this field in which more than half of all our young people between the ages of fifteen and eighteen are being trained.

2. The "demand for training" is no longer defined as the need of companies for trained staff; it is measured by the number of school-leavers. The legislation proclaims the right of everyone to training. It is the expression of the political will to give every young person vocational education and training according to his or her inclination and ability.

What we have not achieved is a supply of training places which is adequate in quality and quantity. In 1978 there were 628,000 applicants for training places, but only 624,000 places were available. The employers had certainly made strenuous efforts and increased the supply by 40,000 over 1977. But to meet the excess of supply over demand of 12.5 percent laid down in the Act, there should have been more than 700,000 new places.

The unions accused the government of failing to apply the legislation. The government justified its course of action by pointing out that in view of the obvious efforts which had already been made by all concerned, the imposition of the levy could hardly have resulted in any further improvement.

The Outlook for Vocational Education in the Federal Republic

Our planning in vocational education is determined by two variables – but predictions concerning one are more difficult to make than predictions concerning the other.

1. The first variable is the demand for training by school-leavers in the next ten to fifteen years. We know the absolute figure for this, because the children who will be leaving Secondary Stage 1 in 1995 are being born this year. What is much more difficult to forecast is the distribution of these school-leavers among the various courses of further education and training in the general school system, full-time vocational schools, and the dual system of company training and part-time vocational school.

   Dramatic as the rise in the demand for vocational training places has been in the last few years, the second half of the 1980s will see an equally dramatic decline. For then the decline in the birth-rate which has been apparent since 1967 in the Federal Republic will be having its effect on the training and labor market. At the beginning of the 1960s the annual birthrate was about 1 million, but at the beginning of the 1970s it had dropped to about 600,000. While there are now about 5.5 million pupils in Secondary Stage 1 at school (ten- to sixteen-year-olds), by 1990 there will only be about 3.5 million in that age group. The reduction in the birthrate in German families is compensated to a certain extent (but only partly) by the rise in the birthrate in the families of foreign workers in the Federal Republic – families from Turkey, Greece, Yugoslavia, Italy, Spain, and Portugal. The number of foreign children born in the

Federal Republic rose from 30,000 in 1968 to 100,000 in 1978. But largely owing to language difficulties, no more than 20 percent of these young people manage to achieve vocational qualifications.

2. The second unknown quantity is the need of the employment system for skilled people. On the basis of a forecast on the development of the various sectors of the economy which was made during the last few years in the Federal Republic, we expect that until 1990

   - basic production, especially agriculture, will continue to decline (but in view of the energy crisis it is expected that the German coal mining industry, which has been running at a very low level in recent years, will be revived);
   - the manufacturing sector will largely maintain its present level of employment, although there will be big changes in the production sphere through further mechanization and automation;
   - the services sector – banking, insurance, trade, the service crafts – and services in the public sector, largely in education and the social services, will continue to develop strongly.

It is not possible to make concrete forecasts of the need for specific qualifications in the various sectors or occupations from global forecasts of this nature. In any case, they would be of a general nature and would apply to all the industrialized countries. We know that in the past, skilled workers in the metal processing industry, in electrical engineering, and in the building industry were least affected by labor market fluctuations. We are therefore stepping up our efforts to increase the number of training places in these occupational groups. We also know that we are at present training more butchers and bakers than the longer term development in these occupations would suggest that we need. But that is a problem for any training system. It trains people for a working life which can be between forty and fifty years, but it is oriented (whether voluntarily or involuntarily) to the currently visible trends in the labor market which at best enable forecasts to be made for only a few years.

Owing to the difficulty in forecasting the need for the various qualifications, we have developed the following maxims for vocational education policy and practice in the Federal Republic:

1. *Any training is better than none at all.* About two-thirds of our more than 800,000 currently unemployed are unskilled people who cannot fill the roughly 350,000 existing vacancies because they do not have the necessary qualifications.

2. *The supply of training places in companies must not be oriented to the current situation of the labor market.* Over the last few years we have recognized the fact that the right of the individual to the best possible vocational qualification corresponds to the future position of the Federal Republic on the world market. If we do not make every effort to give the large numbers of current school-leavers the best possible qualifications, we will be facing a catastrophic shortage of skilled people in about ten years when the number of school-leavers drops by about 40 percent. Therefore, during the last three years, training beyond the immediate need has become a challenge to the public sector and to all companies in the private sector which give training. The large companies especially have utilized their full training capacity in the last few years although they only needed 60 percent of those they trained on their

own staff. This will be necessary for the next five years as well, for until 1984 the demand for training places will remain at the extremely high level we have had this year with about 660,000 applicants.

What will determine the future development of vocational education?

1. The future of vocational education is determined by our image of a working person.

2. The future of vocational education is determined by the ability of those who are concerned with vocational education and training, and particularly the employers and the unions, to form a consensus and work together.

3. The future of vocational education is determined by the quality of the training of those who are implementing it -- the vocational school teachers and company training personnel.

4. The future of vocational education is determined by the individual benefit it gives to those in the system who are less than fully advantaged -- the handicapped, those who find learning difficult, foreign children, and females.

Our Image of a Working Person (Point 1)

In the future, learning in vocational education will mean learning specific skills. But what is characteristic or exemplary will acquire increasing importance because it emphasizes those aspects of a particular activity and particular subjects which these have in common with other activities. The ability to put individual facts into a general framework, to combine and deduce, to make decisions, to gain an overall picture of work processes, and to understand procedures are vocational qualifications which are acquiring increasing importance. These competencies are gradually replacing specific factual knowledge which has a shorter and shorter period of validity. Learning how to learn is in the foreground of initial vocational training. That means the courses in the general schools must be much more strongly oriented to the central areas of work and occupation than has been the case so far.

- Education in school must be oriented to the concrete conditions of working life.

- General education must be provided in connection with the central objects of working life (technology, business).

- Preparation for occupational choice through learning oriented to doing should be provided in the ninth and tenth grades at school.

Here we can learn a great deal from the work of the National Center. What you have done in the field of career education is a very pragmatic and very effective way of preparing for occupational choice.

The organization of vocational education in the school and in the company must provide for a broad basic vocational education which goes far beyond the provision of narrow specialized knowledge for one particular job. Increasing use is being made of project-oriented learning which, in addition to concrete skills, requires flexible attitudes to work, technical knowledge, the ability to judge and make decisions, an understanding of machines, and the ability to communicate and to

work in a team. This broad basic vocational education, which generally lasts for one year, is followed by de-specialized skill training which puts more emphasis on independent work. It generally lasts two years and provides the qualifications which are needed in an occupation.

If initial vocational training is organized in this way it means that further vocational training must be greatly expanded. The further training measures must not (as is still often the case) begin at the end of the initial training and only after a long period at work in the occupation. Further vocational training will provide specialized knowledge, and it should be adaptable to technical progress. These are tasks which are increasingly gaining in importance.

However, in our efforts to organize "life-long learning" we must not over-estimate the capacity of the recipients. Our Federal Minister of Education, Dr. Schmude, recently put it this way:

> I think it is especially important, with all respect for change and for the dynamic of social, economic, or technical development processes, not to lose sight of the fact that the will and presumably the ability of the individual to adjust to continuous change are limited. The concept of life-long learning therefore, it seems to me, should not be extended beyond what is undeniably correct until it becomes ultimately an inhumane burden on the individual.

The Employers and the Unions (Point 2)

In the planning and shaping of company training in the Federal Republic the employers and unions are of paramount importance. The employers determine the supply of training places by negotiating two- to three-year training contracts with young people. On the basis of the state training regulations the companies draw up company training plans and employ training personnel who must meet the state qualification requirements. They finance the training in the company and also pay a small wage to the apprentices which varies according to industry from DM 400.- to DM 700.- in the first year with increases in the second and third years.

The unions have been given statutory participation rights in the planning and implementation of the training in the companies. This has considerably increased their general social weight in this section of the education system.

With regard to the planning of company training, the unions have the same rights as the employers, the federal government, and the Länder in the Federal Institute for Vocational Education. In all the Institute's projects for which experts in company training practice are consulted, the unions and the employers delegate equal numbers of representatives. Inside the companies, the Company Constitution Act of 1972 has given the unions rights of participation in the planning and implementation of the actual training courses and in the appointment of training personnel. During the final examinations, which are held in the Chambers, the same number of union delegates as employers' representatives are present.

This special function in company training, which is shared by employers and unions, means that state activity in this field is generally a result of consensus between the two powerful social groups. In other words, the training regulations for an occupation, the qualification requirements for training personnel, the examination requirements, and many other questions which are ultimately the responsibility of the state are the result of cooperation among the unions, the employers, and specialists on the staff of the Federal Institute for Vocational Education.

In this field of activity the unions do not see themselves only as representatives of the interests of their organized members. They see themselves as representing all workers and employees, the unemployed, and young people in need of vocational training. This gives the work of the unions in this sphere a dimension beyond the particular interests of any one industry, and this cannot be esteemed too highly.

The positive attitude on the part of the unions towards the dual system of vocational education has only developed during the last few years. Until the beginning of the 1970s the unions were demanding that vocational education be transferred to the school system. Their reasons for this were the exclusive power of the employers over company training, the lack of outside supervision of company training, and the real faults in some companies. However, they failed to gain the sympathy of the Länder in the development of an in-school alternative to company training. The Länder even refused to allow employers and unions to participate in the adjustment of school and company training plans. This hostile attitude on the part of the Länder towards cooperation with the unions and the employers was largely responsible for the re-orientation of the unions to company training. Of course the change was facilitated by the statutory participation rights which the unions were given in the planning and organization of company training. Nevertheless the union decision has proved an extremely stabilizing factor for the development of company training. In any case, the unions have made it clear that in their view the requirements of company training will have to be greatly improved if this form of vocational education is to have their support in the future. They also feel improved requirements are necessary to make the chances of promotion for the individual in his or her occupation a realistic alternative to the general education system.

Vocational School Teachers and Training Personnel (Point 3)

Since the 1920s, instruction in the vocational schools in the dual system in Germany has been given by vocational teachers who usually had former training as skilled workers before taking the teaching course. In company training since the 1930s, the master craftsmen have had to demonstrate their ability to teach in their master's examination. Since 1972 the Vocational Training Act has made it obligatory for all company training personnel to have a teaching qualification. A strong sense of occupational status is now developing among the trainers, furthered greatly by state recognition of their function. There are growing demands for independent status with formalized training.

One could say that there is a convergent development between the trainers and the vocational school teachers if it were not for the fact that the development among vocational school teachers is contrary to this. The training of teachers can be taken as a prime example of the fact that vocational education, on its long and difficult path to equality with the general school system, has the greatest obstacles in its own ranks. While vocational education can claim to have developed the initial approach to overcoming the unfortunate separation between theory and practice, it is doing everything to perpetuate this separation in the training of its own teachers. The advantages of "learning oriented to doing," which vocational educators have recommended to the general schools as worth adopting for their own further development, are being rendered absurd by the separation of the training of vocational school teachers into theoretical and practical subjects. In the practical subjects, young people are trained in specific skills in the workshop. The teacher of such skills does not need a university education. But the teachers of theoretical subjects, who no longer need to have any knowledge of the practical application of their subject, do need a university education and are appropriately more highly paid.

We can only hope that there will be a speedy return to the single-phase training for vocational school teachers in theory and practice.

The Handicapped, Foreign Children, Females (Point 4)

The development of our civilization, which does not necessarily always result in progress, has also produced a large number of young people who find learning difficult; who are behaviorally disturbed; who are emotionally, intellectually, or physically handicapped; or who have other difficulties with learning in the present system. They lack essential qualifications for success in working life and cannot obtain their school-leaving examinations. In my view, one of the most serious effects of our social development is the increasing lack of motivation to learn which is producing a particular type of drop-out – a young person of average or even above-average intelligence who is unmotivated and has no desire to learn.

These young people, together with foreign children, the handicapped, and a large percentage of the female children, who may well have good school-leaving passes, enter a labor market which is characterized by considerable shifts in the qualification requirements. This is resulting in a large number of short-term gaps in companies which they feel can best be filled with semi-skilled auxiliary staff. Many people believe that this is the ideal way to place these problem groups among young people. The reasons put forward are –

- Young people who are unmotivated will not accept a long period of training; they want to earn money fast.
- Language ability is not particularly important in these jobs, so foriegn children or young people without their school-leaving examination can be placed more easily here.
- Most girls marry anyway soon after starting work, and a long and expensive period of training is not worthwhile for them.

There is no need to point out how short-sighted and inhumane these arguments are. Of course, in the future we will have a wide range of jobs demanding different qualifications and offering different levels of work. And we also know that job satisfaction does not necessarily depend on the level of qualification needed. But simply accepting semi-skilled and auxiliary work as a necessary component and reserving it for the under-privileged, foreign children, and young women without giving these young people the chance to obtain other qualifications and find access to other occupations and levels would be to deny the principles of the social state to all its members. On the contrary, the state and society should be making special efforts to help these groups with measures designed to give them the best possible start in working life.

A fraction of the sum spent on the education of students would greatly improve the situation of these young people. At present about DM 20,000 in social costs is spent on each unemployed person every year in the Federal Republic. This is twice the sum which is spent by the state on vocational education measures for foreign children, the handicapped and females. We are at present engaged in experiments which are showing that young people who have difficulty in learning can be given a good start in a qualified occupation with the expenditure of more material and time. We should remember this when we use short-term special programs to "get the young people off the streets." We should not forget that these measures can only solve the short-term problems of youth unemployment but that they do not offer an adequate preparation for working life.

Would Cooperation between the Federal Institute for Vocational Education and the National Center be Beneficial?

The education systems in the Federal Republic and the United States are so different that it seems reasonable to ask whether we have enough in common in the tasks and problems facing us to justify cooperation. We also know that comparisons between a number of countries and other people's experiences do not necessarily help in solving our own problems.

In my view, however, the work we have to do and the problems of young people in our two countries are so similar that, despite the differences in our education systems and social framework conditions, cooperation would not only be beneficial, it is a vital necessity. Let me list the problem areas which in my view would be suitable for an exchange of views:

1. The *transition from school to work* is proving an increasingly difficult problem in every society. We see our system of vocational education as a particular link in the chain and as a period of adjustment between school and work. How does the problem appear to you?

2. In aiming for *greater adjustment between the education system and the employment system,* should greater weight be attached to the need of companies for qualified staff (manpower) or the inclination and ability of the young people when choosing a career (social demand)?

3. We rely on close *cooperation between the employers and the unions* on the one hand and the federal government and the Länder governments on the other. What is the situation in your country?

4. We still attach great importance to *learning on the job,* largely because of the motivation of the learner. We see the disadvantages which result from a lack of general education in such a situation and try to solve the problem with more schooling. What is your attitude on the question of the place of learning (school versus company)?

5. We are still trying to cope with the *problems of our fringe groups* with special programs, but we realize that this is not an adequate solution over the longer term. How do you see this problem?

6. *The financing of vocational education* in our country is done in a mixed system. The public sector expenditure is shared among the federal government, the Länder, and the local authorities; but company training is financed only by the companies concerned. Who pays in your country?

I would like to thank Dr. Taylor for giving me this opportunity to present to you some of the aspects of vocational education in the Federal Republic. My colleagues and I in the Federal Institute hope that this will be the beginning of a fruitful cooperation with the National Center.

QUESTIONS AND ANSWERS:
Hermann Schmidt

Question: What percentage of young people in the Federal Republic currently have an opportunity to get involved in the basic year, exploratory program?

We've got what we call a "basic year" which was meant to be done in school, but the program as originally implemented didn't work out very well. We had about 10 percent of an age cohort going into this basic vocational education year program which allowed students to choose among twelve different occupational fields. Metal working, electrical engineering, and general business were among the featured occupations. Training in these occupations centered on skills that are common for each field. The problem with this program was that the school-leaver from the general schools tended to apply for places in vocational schools which were filled without looking at the job prospects for people completing these programs – whether companies were there to provide them with contracts or apprenticeships after this year. So early on we found that we had large numbers of students in structurally weak areas where we had only a few companies offering advanced training or jobs for students who finished the basic year at school. Students had to go to the next city or even farther to get such places, but they and their parents didn't want to do this. To help alleviate this problem, some states very quickly offered another year in school (and they developed "instant" curricula to meet the demand). But even the unions who wanted this year in school realized that it didn't work in all branches and in all parts of the country. The dual system is at its best when it is parallel – company training, school training. Therefore, a basic year was designed for the dual system, too. The student who is in company training has a contract going for three years; he or she cannot be thrown off after one year in order to look for another placement. The student also gets another benefit – when he or she is there for three years, the chances for placement in the particular company are very great. So, in a number of branches companies and the unions developed this contract approach, but only in those companies which can provide workshops. This means that the basic vocational year is not done on the job – it's done three days per week in the workshop and two days per week in school where students take courses in the humanities, on the one hand, and special subjects for their special occupational field, on the other hand. They take a total of sixteen hours of training in school in two days which we think is probably too much. But there is still a basic year in school. Last year we had 10 percent of the beginners in vocational training in school. But there is a rising number of students in the basic year in companies. We hope to make it up to 80 percent of the beginners in a basic year by the mid-80s in both learning places.

Question: How is apprenticeship generally handled in Germany?

An apprenticeship program in Germany can be done over three years in one curriculum which has a final examination. It can also be done in a two-step curriculum which has an examination after two years; whoever does well in this examination can go on for company training. We had such a program in electrical engineering in 1972, but we found that more students did well in the first examination than the company could offer places for in the second stage. Although those who were qualified could have very easily found placement in other companies, they didn't get the chance to be trained. The same thing happened in the construction field. But in the construction business, the

unions and employers developed an ongoing salary agreement which includes a fund-raising item in order to cover the out-of-company training costs. Employers pay 1 percent into a special fund to be used only for out-of-company training in the construction business. In Germany we have 1.3 million people working in the construction business. This year they raised DM 3 million for this fund. So, if a company doesn't provide the second step, they can pay the workshop training which includes the basic year and the second training step as well. The workshops are financed 80 percent by the federal government. The federal government has spent over DM 1 billion on this investment program which started in 1974 and will be finished in 1981. The program in electrical engineering didn't work the same way, however. It is about to be restructured without the second step—just one curriculum, lasting three years, leading to different examinations.

Question: What is the impact of increased mechanization, advanced technology, and heavy capital investment on vocational education in Germany?

That's a very good question. An executive with one of our biggest electronics companies told me that today 22 percent of his company's financial outlay in the field of electronics goes for salaries. By 1985 it will be only 2 percent. The machines appear to be taking over, so I asked him, "What are we going to do? Electronics training is one of the highest quality programs we have." But he answered, "We are continuing to train our apprentices in current methods because we can't tell what changes to make in training to meet the demands we'll face in five or ten years. We don't know that yet ourselves. But since electronics students are trained in a highly qualified manner now," he said, "they will have basic preparation for the changes that will occur."

So training still goes on in basic electronics, and I'm told that it is still considered an excellent program even though everyone knows that it does not include the very latest technological training. If people trained in this program lose their jobs due to specialized technology, they have no problem getting places in other, smaller firms. Our students know quite a bit about electronics and everything that's involved in it, and they have the ability to learn specialized processes. But let me give you another example. Five years ago, most of our printing was done by the lead process although the United States had already developed a new photographic process. Although I'm no expert in this matter, when I was in New York in 1959 I visited the Life/Time International Building and was shown a printing machine that used this new photographic process. So I asked the people in Germany in 1971 when they were developing a curriculum for printers' training, "Won't you investigate this new method, because it will be important in the future." They said, "No, there's no need to; we are doing lead now." But in 1975, all of a sudden someone began to invest heavily in the photographic process and the established printers couldn't compete, so they threw out the lead printing process. Within one year they needed experts on this new technique, and they came to us and said, "Why didn't you tell us we would need training in this area?" We've got this problem in all areas because the curriculum work takes two, three, or four years, and the training period takes three years. So if I start a curriculum now, the first students will finish training in 1987, and no one can predict what will be going on then. The Ministry of Education tried eight years ago to base training for medical doctors on future predictions, and we were so absolutely wrong that we don't do it anymore.

Question: Given the fact that your government is highly centralized, why does it allow foreign workers to take over the unskilled jobs your own 700,000 unemployed Germans could fill?

It may seem to you that the federal government imposes a lot of regulation and has its grip on every company, but it really doesn't. There are about 350,000 companies in Germany involved in training

which is about 25 percent of all of them. The only control we have is to put up regulations. But we have got to do that, because we cannot compete with the general school system and its certificates when there is no standard of qualifications which is set up throughout the country. If we did not impose standards, we would find that certain well-known firms would use good qualifications; and others, who just want cheap labor, would use bad qualifications. This wouldn't work and would do vocational education no good. In fact, quality vocational education could be killed by this. The employers realize this and go along with our standards.

Concerning the second part of your question, among 750,000 unemployed Germans, two-thirds are unskilled. In 1955 we had about 750,000 young people in the fifteen to eighteen age group who did not receive any further education or training. We have cut this down so that last year we had about 250,000. That's about 10 percent of an age cohort which is not trained either in further education schools or in the regular schools. Most of them are foreign youngsters. But those students from the mid-50s who hadn't been trained formed the big army of today's unskilled unemployed people. We spent a lot of money on measures to retrain these people, and we found that it didn't work. It works for a very small percentage of them, but it doesn't work for most of them.

Concerning your question about foreign workers, we stopped the flow of foreign workers in 1973. When the unemployment rate started to rise, the federal government decided to pay up to $5,000 outright to any foreign worker who went home. The government provided transportation, but not many took advantage of this offer. They reasoned that they could live fairly well even if unemployed by living on welfare. They get about 68 percent of their last salary, and this is more than they could expect to receive if they went home. Only about 1.5 million went back; the others stayed. I believe it is their right to do so. They have earned the money they get back when they are unemployed. But you must remember that the people from Italy have no restrictions at all because Italy is in the Common Market. People from Common Market countries can come and go as they please. There are no immigration restrictions in member countries. We are now facing a larger immigration problem with Greece becoming a member of the Common Market. After 1982, anybody from Greece can come to Germany; and after 1988, Turkey and Spain, by virtue of their Common Market membership, will be sending people too. We are now discussing measures to deal with this problem. But I think you are under the impression that most of these foreign workers are unskilled. This is not true; most of them are skilled. But in Germany they are often employed in unskilled jobs which they are not happy with. And quite a number of them through the years rise to higher positions. After they acquire basic language skills, the competition isn't for the unskilled jobs anymore, as you mentioned, because most of these people don't want to take unskilled jobs. The competition is on a higher level at this stage. I will not deny that there is competition in some occupations between Germans and foreign workers, but I wouldn't say this is the major problem with respect to foreigners. We've got bigger problems with housing and schooling for foreign people. Most of the Turkish people, for example, send home 70-80 percent of their salaries. They live on what is left—a very small amount. Since they aren't familiar with Germany or Germans, they tend to accept almost everything that they are told, so we have the problem of exploitation. The government has to look after their living conditions quite a lot, and they do, but it's a new problem to Germany. Germany was never an immigration country. Schooling foreign children is new to us, too. At first, we hired teachers from their native countries to give the children schooling in their native language. We tried this for a couple of years and found that it didn't work. They tried to speak German on the job, but at home they still spoke their native language. Now in vocational education we are facing the problem of foreigners who can speak neither German nor their native language. They can't write in either language; they simply never learned to write. So we have started a new program to bring foreign children into kindergarten at the age of three in order to solve the language problem before they enter school. It cannot be solved when they enter school, since by that time language patterns have been pretty well set.

Question: How is career education handled in the Federal Republic?

Guidance counseling in Germany is given to a special agency called the Federal Agency of Employment, which is the only federal agency that has branches in all cities all over the country. Now these agency branches each have guidance counselors who do only counseling and others who handle placement. A counselor might request that the potential employee show proof of training, usually a certificate, and he or she has the person undergo psychological tests. When all the preliminaries are completed, the counselor might say, for example, "You would be a perfect builder or plumber." Armed with this information, the student (who is only fifteen years old) goes to the placement officer who says, "This is great, but the only training place available at the moment is a bricklayer placement." The guidance counselor has been to school and knows about all the possibilities society offers. The placement officer has been to the community and knows that possibilities in that small geographical area are limited – that young people from rural districts have to go to Munich or Hamburg or other big cities for greater job possibilities. So most of the local placements are done by hearsay – family members, peer groups, friends of friends, etc. I think we could learn quite a lot about guidance counseling from the American experience. What I learned about guidance counseling in vocational schools here was impressive. Guidance people are in the schools. They do a follow-up; they go into the companies. Their placement rate is very high. There is a lot you are doing that we could duplicate with success in Germany. The way it is now, our guidance counselors don't even ask what happens to those who get placements. School teachers don't know too much about company possibilities. Vocational teachers might know more, but they aren't equipped to do guidance or placement. They see unemployed students on the one-day release program. Students see this time as their one day off; they sit there and don't listen. Although we have several good people trying to do a good job, the system has to be improved to deal with these problems.

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